

## Abstract of the Disclosure

Disclosed is a method for forming metal wiring in a semiconductor device. The method comprises forming a TiN thin layer on a semiconductor substrate by using Ti compound containing a halogen element which corresponds to a 17 group element in the periodic table and  $\text{NH}_3$  reactant and adsorbing halogen atoms to the surface of the TiN thin layer; and forming a copper (Cu) thin layer on the TiN thin layer by using the adsorbed halogen atoms as catalyst. Wiring can be carried out in situ in a single chamber system in order to obtain excellent interface characteristics and a short process time.

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